Utilization Monitoring Committee

Medical Services

Annual Report
1990/91

92-07366/

Alberta
HEALTH

Utilization Monitoring Committee
Medical Services

December, 1991

The Honourable Nancy J. Betkowski
Minister of Health
323 Legislature Building
Edmonton, Alberta

Dear Ms. Betkowski:

I have the honour to present the first Annual Report of the Utilization Monitoring Committee — Medical Services for the period May 1, 1990 to June 30, 1991.

The Annual Report describes the trends in Alberta's use of medical services. From 1979/80 to 1989/90, the number of Albertans insured by the Alberta Health Care Insurance Plan increased at an average annual rate of 1.6%; the total number of physicians who bill the Plan increased at an average annual rate of 4.0%; and services per 1,000 insured persons increased by 3.9% annually. Among the major types of medical services, the ones with the highest average annual increases from 1979/80 to 1989/90 were consultations (6.3%), pathology services (5.0%) and other diagnostic and therapeutic services (4.5%).

It is worth noting that more services per resident of Alberta were rendered than at any time in the past. The Committee, at this time, is unable to offer an explanation for this pattern, but is able to report that a number of issues have been chosen for study in this next year. These issues include: the growth in consultations, employer generated services, ophthalmology services, routine hospital admission testing and the use of technology assessment and utilization management in Alberta.

The Committee thanks you for the attention given by your office to the recommendations made to you on the extent of our mandate, on mandatory consultations, on single primary billing numbers for physicians and on the tracking of laboratory tests across both private and hospital laboratories.

Respectfully submitted,

R. Coombs
Chairman

Acknowledgements

As Chairman of the Utilization Monitoring Committee, I must express my admiration and respect for the members of the Committee. Flexibility, fairness and candor were always present in our meetings and a deep respect for both the consumer and the provider of health care services in Alberta was apparent in all discussions. The first year in a new endeavour is always difficult and time was necessarily spent exploring blind alleys before a pattern of more productive endeavours was chosen. The patience and good humour of the members deserves an expression of gratitude and I willingly give it. I would be remiss if I did not mention the personal and professional commitments that attended the work of all the members. This work is not easy, almost always unrewarding financially and never as personally satisfying as one would like. Notwithstanding, the energy, enthusiasm and attention to the tasks at hand shown by all was remarkable. The Committee must pay special tribute to Dr. William Devine who gave so much of his personality, energy and integrity to our work before his untimely death in January, 1991.

Credit must go to the Alberta Medical Association, the Alberta College of Physicians and Surgeons and the Alberta Healthcare Association. Dr. Burns, Dr. Ohlhauser and Mr. Macgregor were always available to the Committee for support and advice. Much of the guideline work fell to the Alberta Medical Association and to Dr. Burns who acted with diplomacy, commitment and great patience.

The Committee acknowledges with gratitude the cooperation and encouragement offered its work by the Task Force on the Use and Provision of Medical Services chaired by Mr. Graham Scott. This Ontario committee, funded jointly by the Ministry of Health and the Ontario Medical Association has shared freely with our Committee its work on hypercholesterolemia as well as its work on thyroid function testing. It is expected that sharing of information between the various provincial committees will lead to improved consensus gathering and more cost effective technology assessments.

Unfettered and unfailing support has come from Mr. David Kelly and the staff of Alberta Health. Our gratitude goes to Dr. Mo Cheung and Ms. Joanne McKechnie who provided much of the research work that supports our deliberations and the information in this annual report. Dr. Kathy Dauphinais, who put this material together so succinctly for this report, has been of great assistance to the Committee. I thank, as well, the Honourable Nancy J. Betkowski for her encouragement and her support throughout the first year of our operations.

Foreword

The October 1989 report of the Advisory Committee on the Utilization of Medical Services ("An Agenda for Action") examined the use of physician and diagnostic services in Alberta for the period 1979/80 to 1988/89. These services had shown a consistent rise over preceding periods. This trend continued through the study period with a levelling off in the last two fiscal years of 1987/88 and 1988/89. Factors contributing to the general increase in utilization and to the levelling off were felt to be many and complex in nature. This Committee, in reporting its findings to the Minister of Health, the Honourable Nancy J. Betkowski, recommended that:

> "2.4.1 A Monitoring Committee with representatives of the professional associations, the various health care stakeholder groups and Alberta Health should be established to review, count and analyze the use of all health care services. The Monitoring Committee should use the resources of its member groups in carrying out its responsibilities."

This report also recommended that:

> "2.4.2 The Terms of Reference for the Monitoring Committee recommended above should include the responsibility for developing and supporting an improved monitoring system. This system will record and measure the future use of medical services in Alberta. In addition, the Monitoring Committee should guide the redevelopment and enhancement of health care information systems in Alberta."

It is these two recommendations, of the many in this Advisory Committee's report, that have principally guided the work of the Utilization Monitoring Committee — Medical Services in the first year of its mandate. Utilization trends and variation practices have to be counted, analyzed and disseminated to the field if understanding is to be achieved and necessary changes identified for future action. This report touches only briefly on the question of geographic variations in medical practice. The Committee is interested in this issue and believes that explanation should be sought, action steps identified and research into this complex area funded.

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Background: The Utilization Monitoring Committee — Medical Services

In May, 1990, the Honourable Nancy J. Betkowski, Minister of Health, established the Utilization Monitoring Committee — Medical Services.

This Committee has a mandate to review the overall utilization of medical services provided to residents of Alberta and make recommendations to appropriate bodies with respect to patterns of utilization that promote delivery of high quality care in a cost-effective manner. Using a definition of utilization which includes both the changing nature of physician services as well as the changing number, the Committee will undertake the following tasks:

1. Review changes and trends in utilization of medical services provided by physicians and the associated costs.
2. Conduct or initiate research designed to identify reasons for changes in utilization and factors underlying the trends.
3. Recommend standards or protocols for the provision of medical services against which utilization can be measured.
4. Identify inappropriate patterns of utilization and identify actions that should be taken to ameliorate the problem.
5. Such other matters as the Minister may request from time to time.

Membership

The College of Physicians and Surgeons representatives are:

Dr. Robert C. Black, Obstetrics & Gynaecology, Edmonton

Dr. Stewart William Devine (deceased), Obstetrics & Gynaecology, Edmonton

Dr. Eric A. Wasylenko, General Practitioner, Okotoks

The Alberta Medical Association representatives are:

Dr. Robert Hatfield, Internal Medicine, Calgary

Dr. Bryan D. Ward, General Practitioner, Wainwright

The Alberta Healthcare Association representative is:

Mr. David J. Hart, Board Chairman, Alberta Healthcare Association

The Alberta Health representatives are:

Mr. David Kelly, Assistant Deputy Minister, Health Care Insurance Division

Ms. Sharon Snell, Provincial Nursing Consultant

The General Public representative is:

Dr. Richard Plain, Associate Professor, Department of Economics, University of Alberta

The Utilization Monitoring Committee — Medical Services is chaired by **Mr. Ralph Coombs**, the former President of the Foothills Provincial General Hospital.

Support

Alberta Health research support is provided by:

Dr. Y.M. Cheung, Director, Health Economics and Statistics Branch, Policy and Planning Services Division

Dr. Kathy Dauphinais, Policy Analyst, Medical Director's Office, Health Care Insurance Division

Ms. Joanne McKechnie, Manager, Professional Review, Claims Branch, Health Care Insurance Division

The Committee met on 11 occasions between May 1990 and June 1991. The initial focus of our work centered on the establishment of guidelines for common medical practices. To determine the desirability and feasibility of such an undertaking, meetings were held with representatives of the Alberta Medical Association, the Alberta College of Physicians and Surgeons and the Alberta Healthcare Association.

Significant support was received from each of these organizations. Thyroid function testing was chosen as the issue for study to determine if an Alberta consensus or guideline could be determined, the manner in which the consensus guideline should be disseminated throughout Alberta and the method to be used in monitoring actual future usage against

the guideline. The model, if found to be useful on this issue, would be used in full or modified form in other areas of utilization concern. The paramount concern of the Committee was always that of improving the quality of care through improved utilization of the resources available to the providers of health care in the province.

One could conclude from an examination of the data in this report that the rise in medical services rendered is more closely linked to provider availability than to consumer need. The Committee cautions against such a conclusion, as there are many factors affecting utilization of medical services. Each of these factors needs further examination and the Committee will explore a number of these factors over the next year of its work.

While the Committee did not, in its first year, seek out input from the health care field on utilization issues, it was pleased with the number of individuals and organizations that proffered briefs, information and ideas in the areas of utilization enhancement. (These are listed in Appendix 2.)

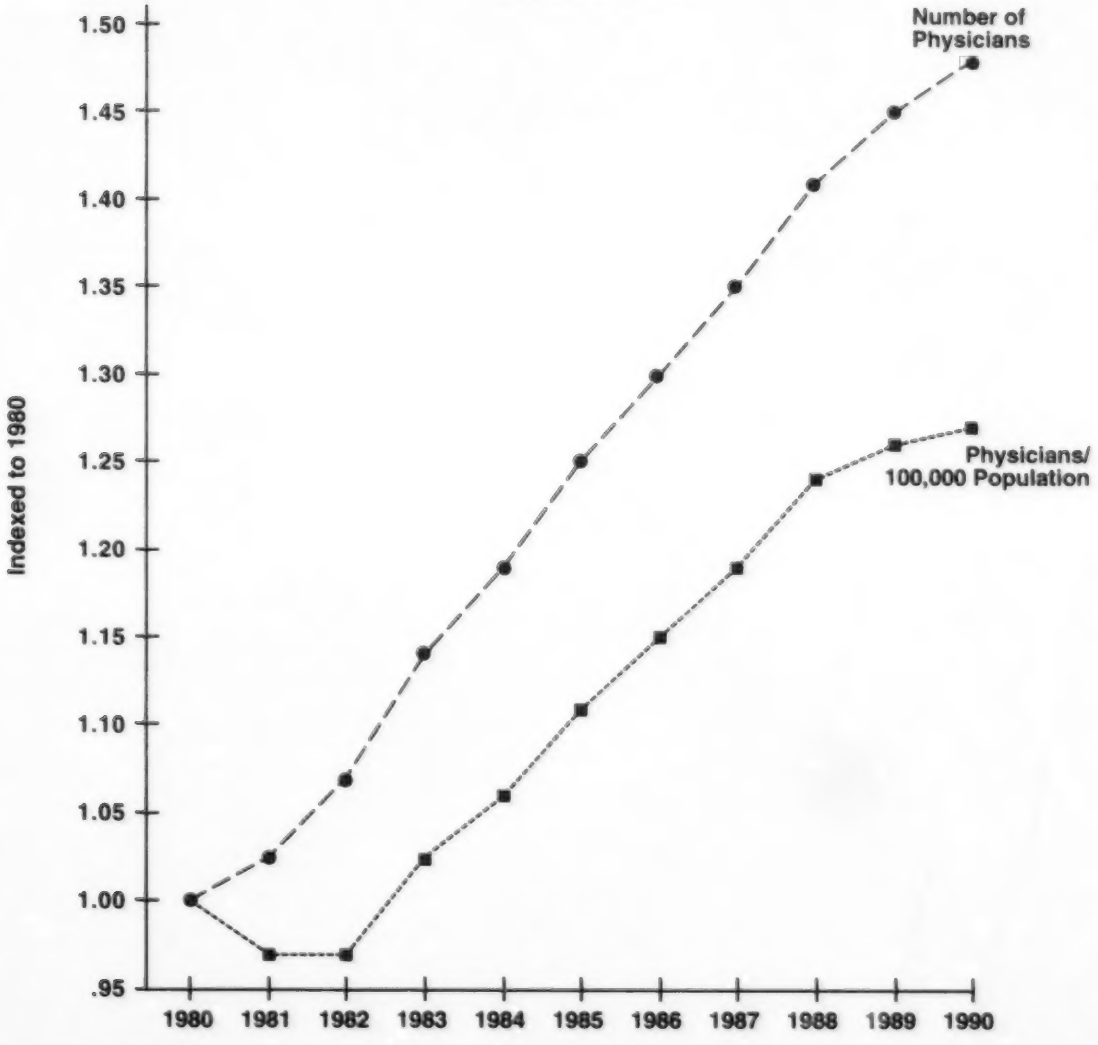
The Committee is encouraged by the interest shown by the field in this complex issue and by the willingness of Alberta Health to support utilization and technology assessment endeavours.

Trends in Alberta's use of Medical Services

The number of Albertans insured by the Alberta Health Care Insurance Plan (AHCIP) increased at an average annual rate of 1.6% from 1979/80 to 1989/90. The number of discrete patients (i.e., the number of patients for whom at least one medical service was provided during a year) rose more quickly, increasing by 2.4% annually. This indicates that a larger percentage of the population used the health care system at least once a year. See Table 1.

The total number of physicians who bill the AHCIP increased from 2,669 in 1979/80 to 3,945 in 1989/90, an average annual increase of 4.0%. See Figure 1 and Table 1 in Appendix 1.

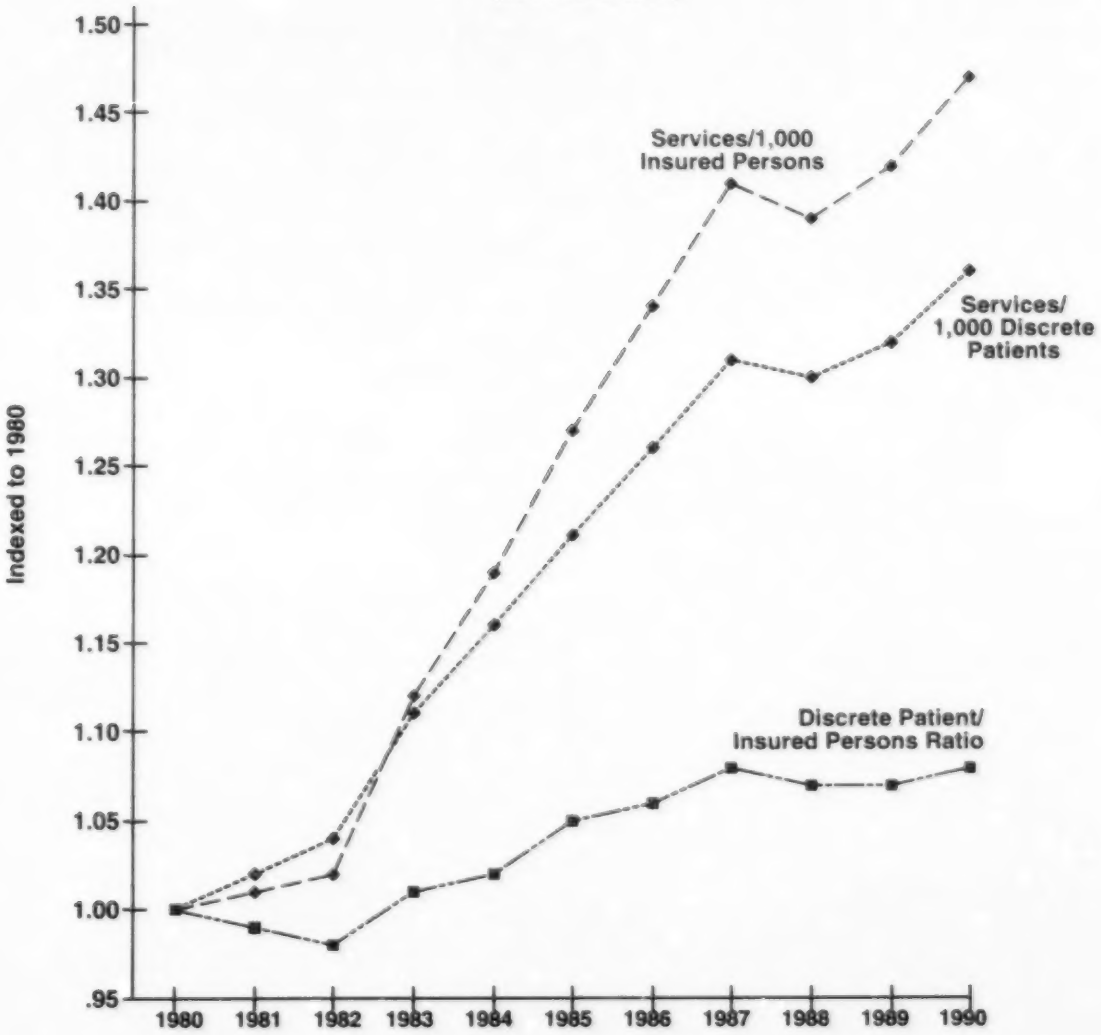
(Figure 1) Annual Changes in the Selected Indicators Relating to the Utilization of Medical Services
for the years Ended March 31, 1980 – 1990
(Indexed to 1980)



Source: Health Economics and Statistics — Alberta Health (for all Figures shown).

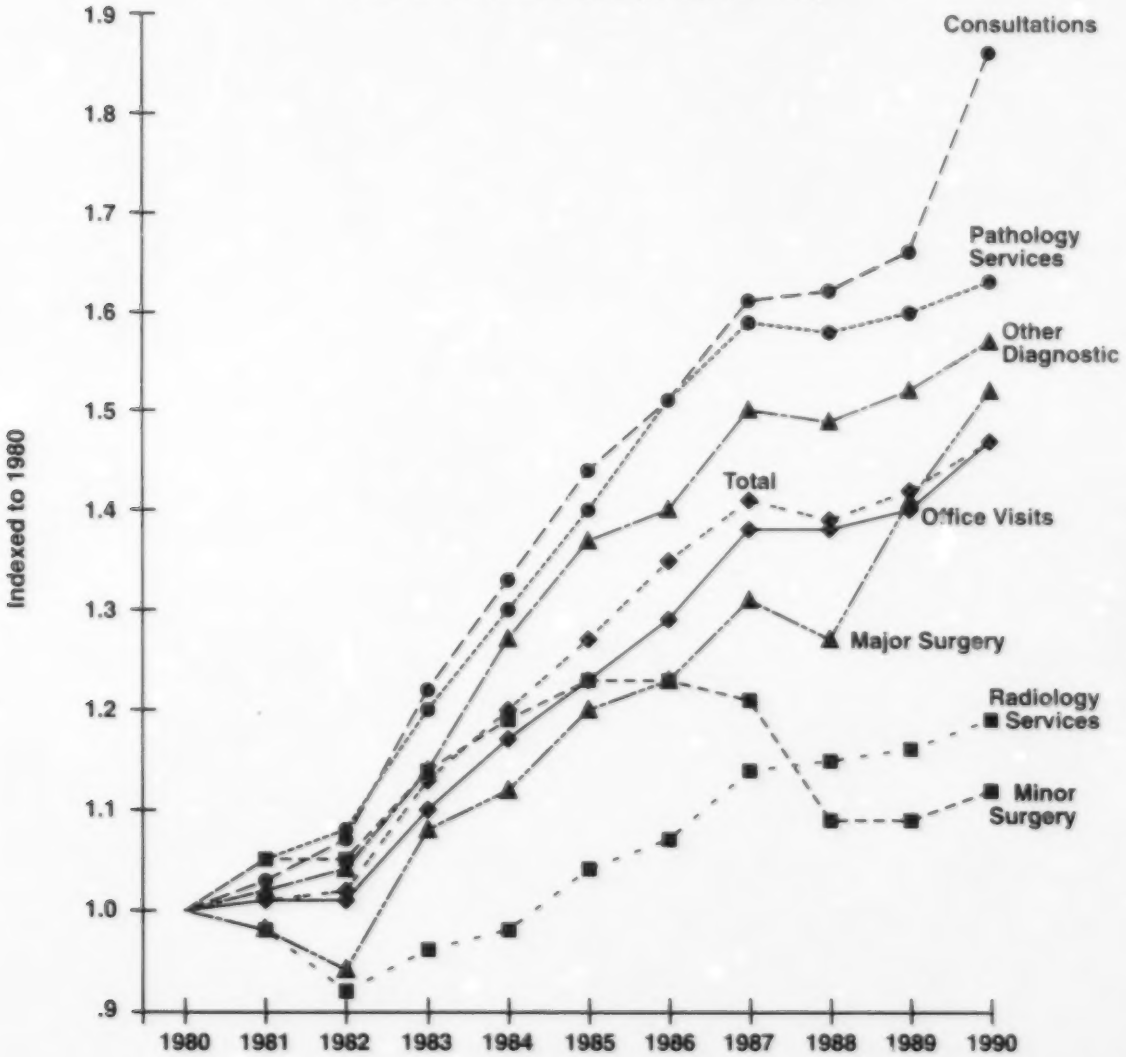
Services for 1,000 insured persons have also demonstrated a corresponding increase from 7,656 in 1979/80 to 11,240 in 1989/90, an average annual increase of 3.9%. See Figure 2 and Table 1 in Appendix 1.

(Figure 2) Annual Changes in the Selected Indicators Relating to the Utilization of Medical Services
for the years Ended March 31, 1980 – 1990
(Indexed to 1980)



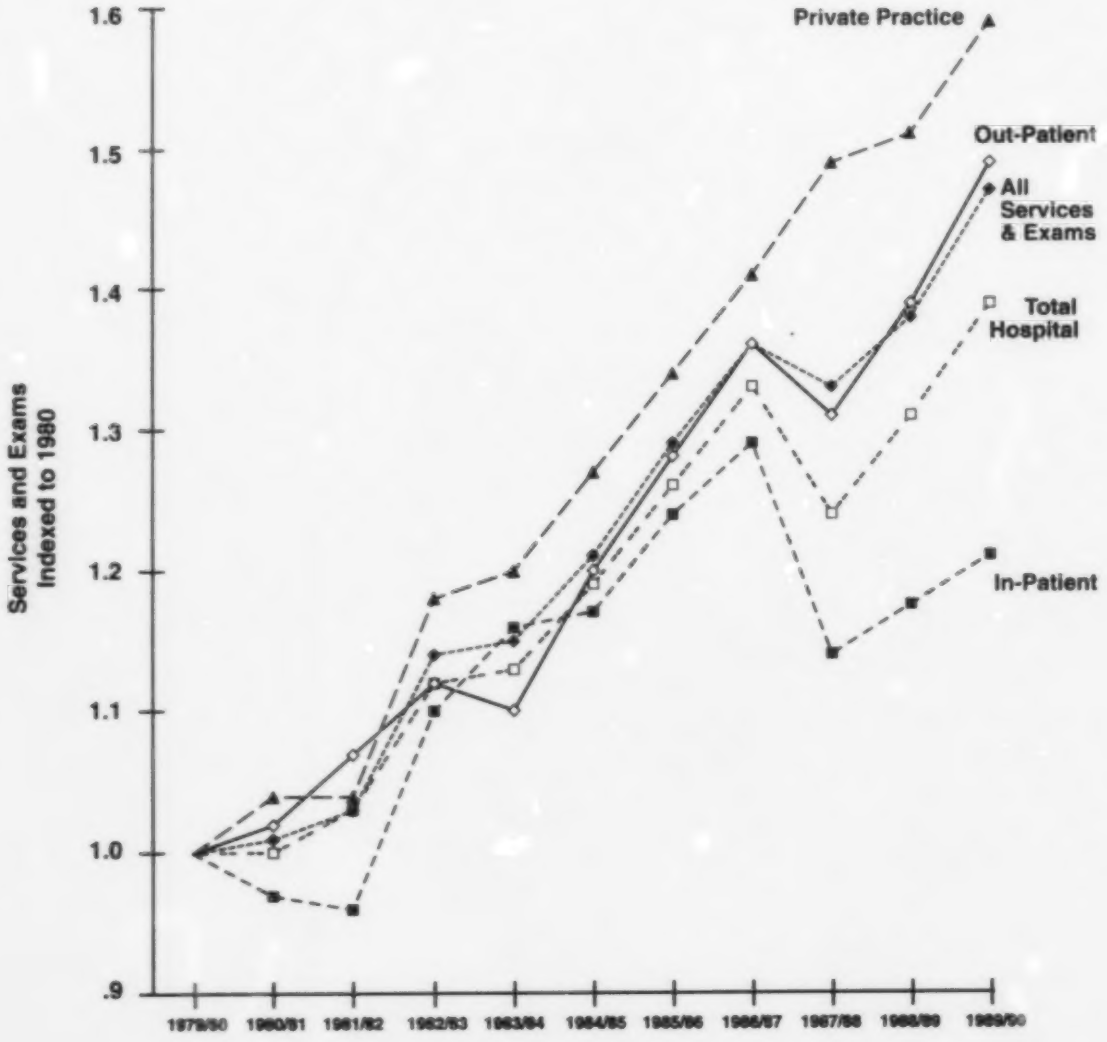
A review of the trends in the major types of medical services provided (measured in terms of services per 1,000 insured persons) reveals that the most rapid annual growth from 1979/80 to 1989/90 occurred in consultations (6.3% increase), pathology services (5.0%) and other diagnostic and therapeutic services (4.5%). Also, of particular note, is the substantial rate of increase in the number of anaesthetic services and major surgeries (4.4% and 4.3%, respectively). See Figure 3 and Tables 2, 3 and 4 in Appendix 1.

(Figure 3) Medical Services per 1,000 Insured Persons
For Selected Types of Service for the Years Ended March 31, 1980 – 1990
On a Date of Service Basis (Indexed to 1980)



More specific examination of the number of diagnostic radiology services and examinations performed in Alberta from 1979/80 to 1989/90 reveals that the most rapid growth occurred in services provided in fee-for-service laboratories. See Figure 4 and Table 5.

(Figure 4) Private and Hospital Diagnostic Radiology Services and Examinations

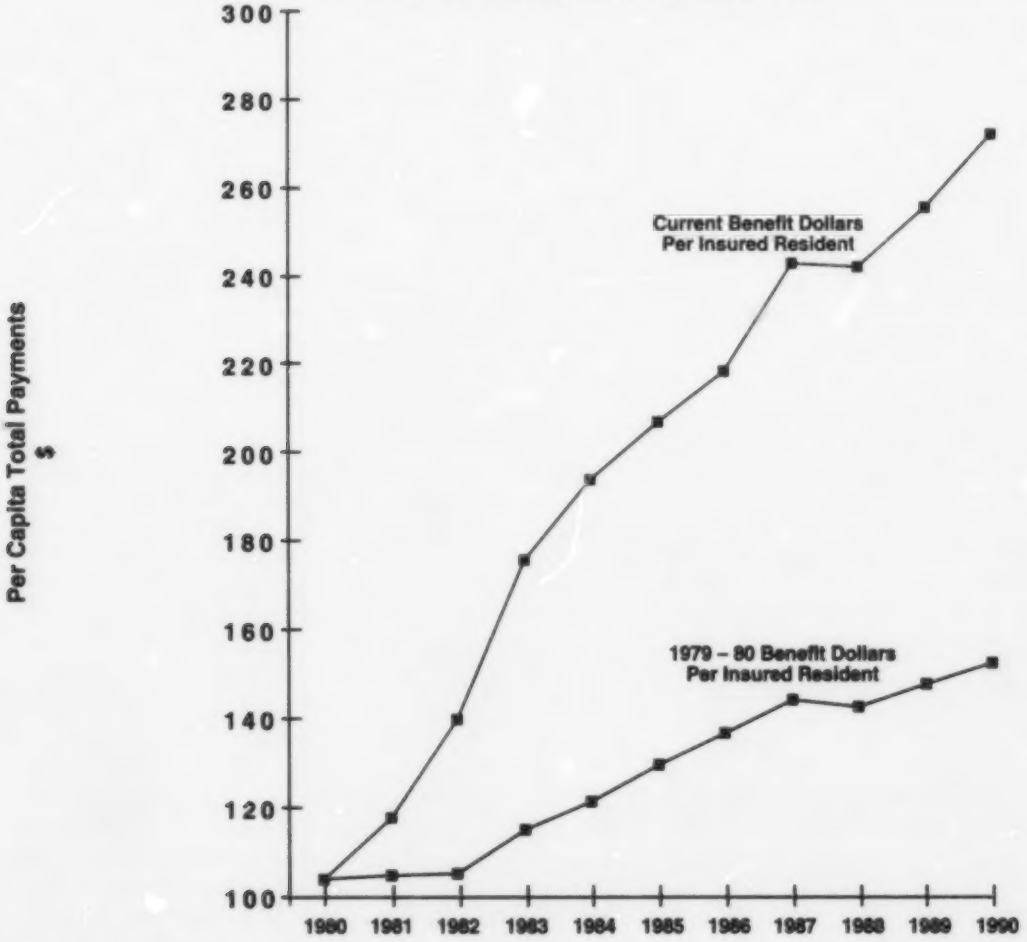


Fee-for-service medical payments increased at an average annual rate of 11.9% from $226,997,558 in 1979/80 to $696,290,891 in 1989/90. Expressed in terms of 1979/80 benefit dollars, the cost increased to $390,538,387 in 1989/90, an average annual increase of 5.6%. See Figure 5 and Table 6.

The data in this report shows that the levelling off trend noted by Dr. Watanabe and his committee's report, "An Agenda for Action," October 1989, has not continued. Explanations are necessary and these will come as the health care field increases its interest in utilization management as it pursues improvements in the quality of care offered to Albertans.

Careful assessment of current practices, through examination of new and existing technologies and adoption of guidelines where appropriate, together with the continuation of goodwill between provider groups, the paying agencies and the public, will bring many of the answers needed in the search for effective allocation of health care resources.

(Figure 5) Total Fee-for-Service Medical Payments per Insured Resident
For the Years Ended March 31, 1980 to 1990



Geographic Variations in Medical Practice

Geographic variations in the utilization of medical services are an important measurement of the performance of the health care system. A substantial and growing body of research has demonstrated that per capita rates of surgery, medical services and hospital utilization vary widely across small and large geographic areas. Significant variations occur across the province and across all specialties but this report, for illustration purposes, will touch briefly only on surgical procedures.

For several decades, wide variations in the use of surgical procedures have been found in the United States, United Kingdom, Norway and Canada. Wide variations have also been found in Alberta. Saunders and Flowerdew, in the article *Cesarean Sections in Alberta from April 1979 to March 1988* (Canadian Medical Association Journal 1991; 144:10), examined rates of cesarean section in 13 regions in Alberta. They found that there was considerable variation among the regions, with about a twofold difference between the highest (Fort McMurray — 22.3 cesarean sections per 100 deliveries) and the lowest rates (High Level-Fort Vermilion-10.3). They also noted that regions with high rates during 1979/80 tended to have high rates throughout the study.

Members of the Committee also reviewed the report *The Incidence and Rates of Surgery in Alberta: 1981/82 and 1986/87* which was released by Health Economics and Statistics, Alberta Health, in August, 1990. This report provides extensive data on the incidence and rates of surgery across 13 utilization regions of Alberta. It allowed members to monitor some of the trends and variations in surgery rates over a period of time and across the different regions of Alberta.

The picture emerging from this analysis depicts a growth in the number of surgical procedures being performed on Alberta residents that is almost twice the growth in the population. From 1981/82 to 1986/87, the number of surgical procedures on Alberta inpatients increased by 10.5%, while the population increase from 1981 to 1986 was only 5.6%.

As Figure 6 illustrates, Calgary General Hospital District accounted for the largest proportion of the total surgical cases for Alberta at 50,214 cases (25.6%) in 1981/82 and 58,756 cases (27.1%) in 1986/87. Edmonton General Hospital District was close behind with 49,915 cases (25.5%) in 1981/82 and 55,370 cases (25.6%) in 1986/87. High Level-Fort Vermilion Area experienced the largest increase (35.2%) in the number of surgical cases, while the number of surgical cases in both Lethbridge and Medicine Hat Area declined by 1.7% and 0.6% respectively.

The calculation of a surgical rate index allows for each region to be compared according to its rank in the index. The surgical rate index compares each procedure-specific surgical rate in each region to a standard, which in this case is the procedure rate for Alberta in 1986/87. As Figure 7 illustrates, in 1981/82, the region of Lethbridge Area had the highest index of surgical rates, while the Medicine Hat Area ranked second followed by the High Level-Fort Vermilion Area. In 1986/87, the highest ranking index shifted to the High Level-Fort Vermilion Area, while Lethbridge Area's rank dropped from first to second and Medicine Hat Area's rank dropped from second to fourth. In 1981/82, the lowest ranking surgical index was for residents of the Calgary Area, while in 1986/87 the Red Deer Area ranked lowest.

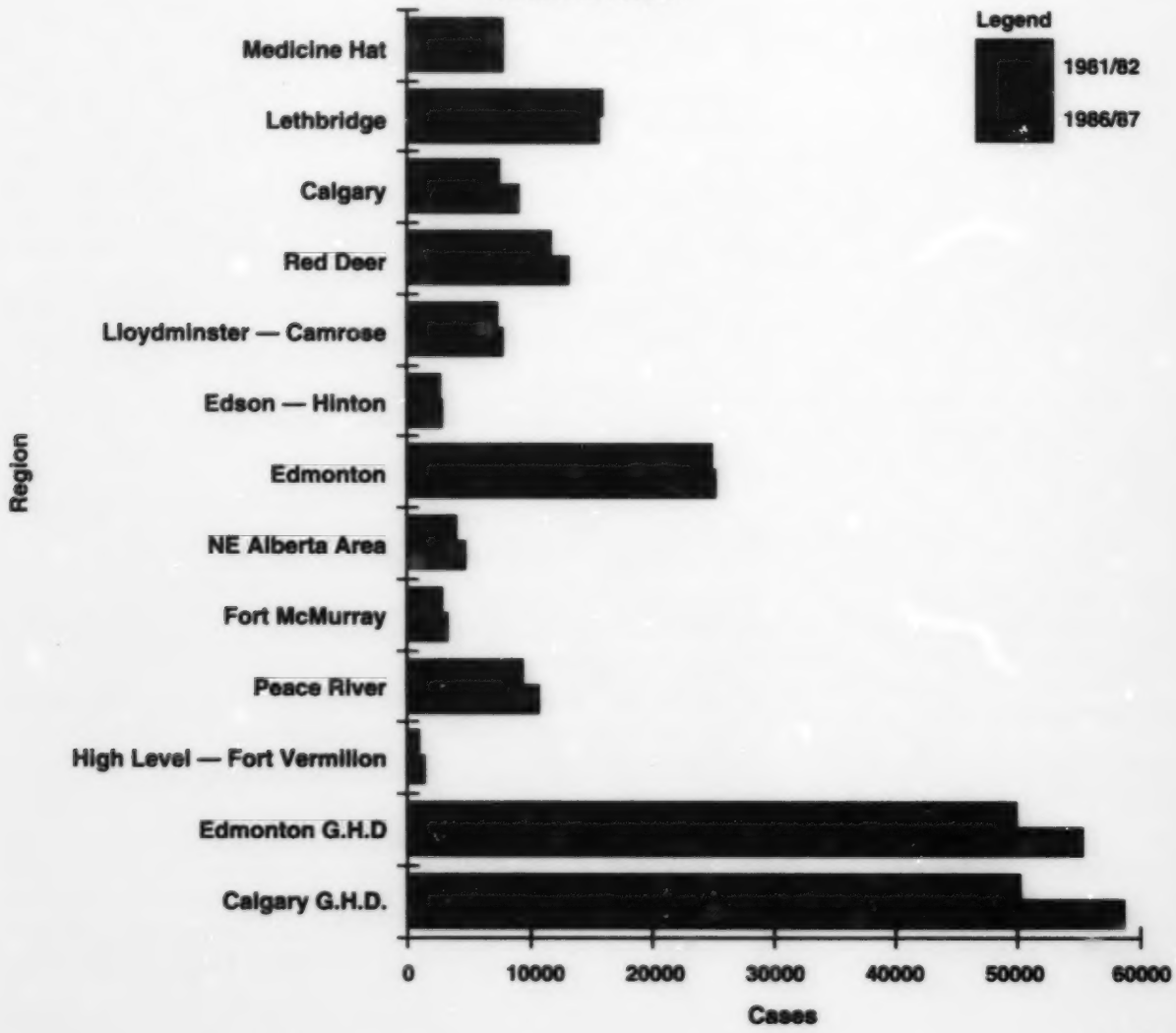
The significance of geographic variations in medical utilization has been considered for several decades. Potential explanations for wide variations in surgical utilization have included supply of hospital beds, hospital admissions per capita, physician supply, socioeconomic factors, demographics, patient morbidity, access to health care, health care resources per capita and physician practice style. The significance of the contribution of each of these factors is controversial.

R. G. Evans (1989), in his paper, *The Dog in the Night Time: Medical Practice Variations and Health Policy,* suggests that small area variations may represent evidence of inappropriate care. The regions, hospitals or practitioners with high rates may be providing unnecessary services; low rates

may indicate that insufficient services are being provided and that legitimate needs are not being met. Evans suggests that this question, as to whether high rates represent overuse or low rates represent underuse, has not been addressed by health care researchers, except in a very limited number of cases. As well, how do you determine what is the ideal rate or the ideal clinical practice style? The idea of a "correct rate" is ambiguous.

L. L. Leape, in the article *Unnecessary Surgery* (HSR: Health Services Research; 24:3) examined the question of whether geographic variations indicate unnecessary surgery. He concluded that geographic variation studies provide indirect evidence of unnecessary surgery:

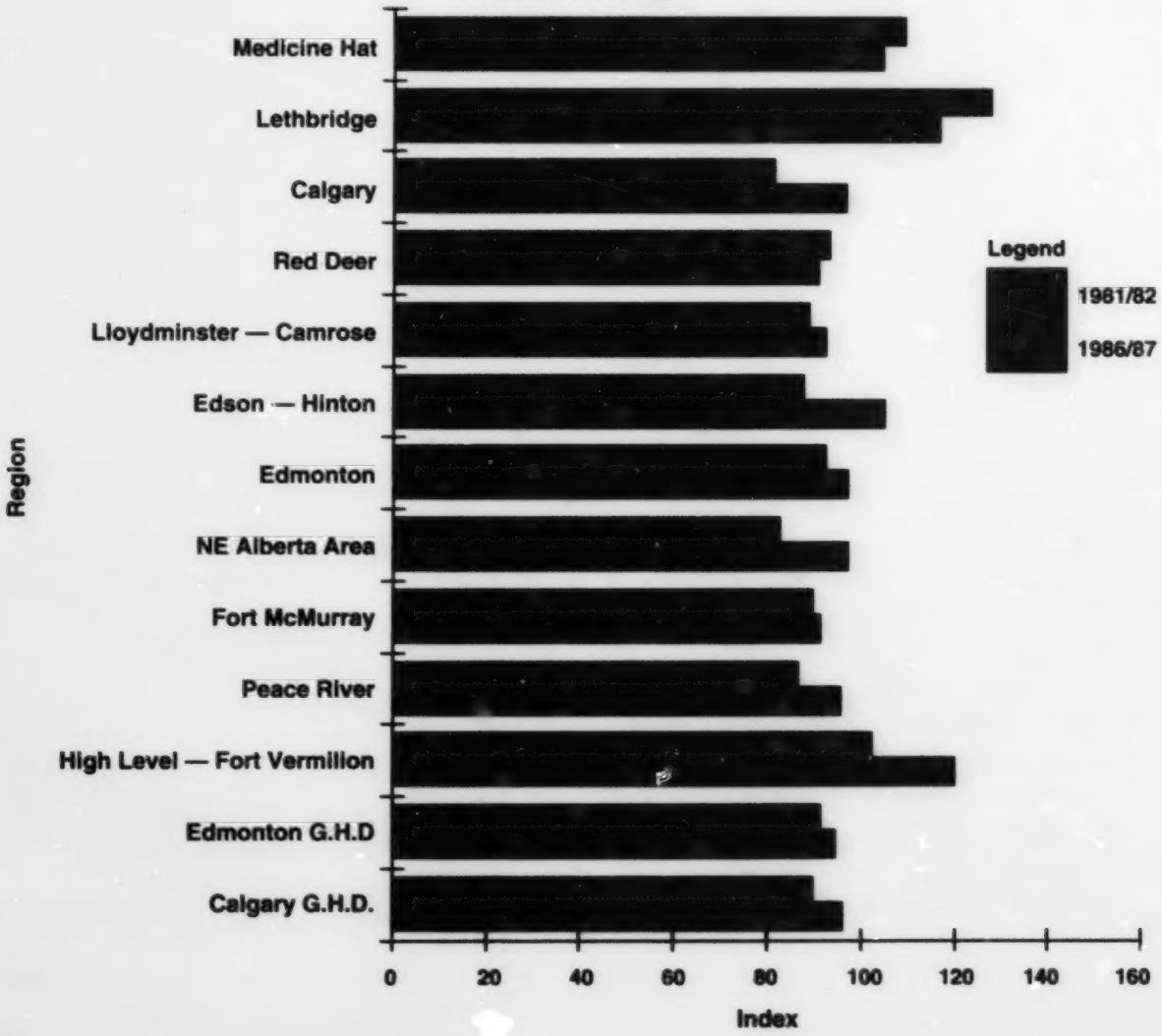
(Figure 6) Distribution of Surgical Cases by Region
1981/82 and 1986/87



A high degree of geographic variation is associated with a high fraction of inappropriate use, although the correlation is far from one-to-one. Geographic variations, therefore, are evidence of unnecessary surgery, but they do not provide the data to quantify it.

Small area variation studies can play a significant role in dealing with important policy questions relating to the delivery of medical services. The primary goal of small area variation analysis is to identify services with wide variations; it is likely that these variations will be used to suggest overutilization in some markets and underutilization in others. This information provides a measurement of the performance of the health care system — the first component of utilization analysis. Comparison to a standard such as patient outcome studies, and education, monitoring and feedback systems, may result in reduced variations and utilization.

(Figure 7) Surgical Rate Index by Region
1981/82 and 1986/87



Committee Activities

The following is a summary of the major activities of the Utilization Monitoring Committee — Medical Services since its inception in May,1990:

Consultations

As part of a detailed review of the utilization of medical services in Alberta, consultations were identified as an area of concern because of rapid growth. From 1979/80 to 1989/90, the average annual increase in the number of consultations per 1,000 insured persons was 6.3%. The number of consultations per 1,000 insured persons grew faster than all other services, except the miscellaneous category (see Table 2). From 1979/80 to 1989/90, the average annual increase in the amount paid for consultative services was 13.7%. In the year ending March 31, 1990, consultations represented 8.2% of amounts paid by the Alberta Health Care Insurance Plan for Alberta residents.

The Committee is currently reviewing the impact of the following factors on the rapid growth of consultations: hospital vs. non-hospital consultations, major teaching hospitals vs. other hospitals, and the trend towards one patient receiving more consultations vs. more patients receiving consultations. Specialities noted for further review are anaesthetists, paediatricians, dermatologists, psychiatrists, obstetricians and gynaecologists, internists and otolaryngologists.

Employer Generated Services

Members of the Utilization Monitoring Committee — Medical Services are concerned about the issue of office visits generated by the requirement of many employers for a medical certificate when employees have been absent from work because of illness.

Ophthalmology Services

As part of a broad review of the numbers of services provided by Alberta physicians and the costs of such services, for the years ended December 31, 1980 to 1989 inclusive, it was noted that the number of cataract surgeries increased rather dramatically from 2,429 in 1980 to 9,924 in 1989, with the corresponding amounts paid for these services rising from $801,728 to $5,514,078. Seeking an explanation for these increases has raised a number of questions. During the same interval, the population of Alberta increased from 2,149,100 to 2,426,900 people.

From 1980 to 1986, the numbers of ophthalmologists remained fairly steady from 60 to 64. In 1987 and 1988 the numbers rose to 69 and 70, respectively, and then dropped slightly to 68 in 1989. From 1980 to 1989 inclusive, the numbers of ophthalmologists doing cataract surgery rose from 45 to 51, an average annual increase of 1.4%.

The Utilization Monitoring Committee — Medical Services has invited representatives of the Ophthalmological Society of Alberta to discuss the increase in the number of cataract surgeries between 1980 and 1989.

Routine Hospital Admission Testing

On behalf of the Utilization Monitoring Committee — Medical Services, the Alberta Healthcare Association is currently surveying its member hospitals in order to define more concisely the current practice in Alberta for routine investigations when admitted to an acute care hospital. Members of the Committee question the benefit of routine hospital admission testing, without regard to clinical need or previous outpatient testing, of healthy patients without previous histories of illness. They believe that an Alberta consensus on this issue would produce benefits to the system.

Technology Assessment

The members of the Utilization Monitoring Committee — Medical Services recognize the interface between the concepts of utilization analysis and technology assessment. Technology assessment can play a major role in the definition of the standard for clinical practice (one of the three components of the feedback loop of utilization analysis — measurement, comparison to a standard, and response to modify performance). Technology assessment also provides a valuable input in the development of clinical practice guidelines.

The Committee is aware of the technology assessment activities in Alberta and Canada and is encouraged by the establishment of the Canadian Coordinating Office for Health Technology Assess-

ment in Ottawa which has as its mission: "To encourage the appropriate use of health technology by influencing decision makers through the collection, analysis, creation and dissemination of information concerning the effectiveness and cost of technology and its impact on health." Steps are being undertaken to establish an ongoing liaison between the Committee and this organization.

Thyroid Function Testing

For the year ending June 30, 1990, the Alberta Health Care Insurance Plan (AHCIP) paid more than $13,000,000 for thyroid function tests to private laboratories. It is estimated that the inclusion of hospital-based testing would double this figure. Thyroid function tests accounted for approximately 13% of the total amount paid by the AHCIP for all laboratory and pathology services.

For the year ending June 30, 1990, 233,978 Albertans (or approximately 9% of the total population of Alberta) received one or more thyroid function tests. Use of progressive thyroid profiles was less prevalent than thought desirable and the design of some requisition forms contributed to multiple tests being performed.

At the request of the Utilization Monitoring Committee — Medical Services, the Alberta Medical Association has led a process to develop guidelines for thyroid function testing in Alberta. This report has just been received and once reviewed by the Utilization Monitoring Committee — Medical Services, and after consultation with the Alberta Medical Association, the College of Physicians and Surgeons, and the Alberta Healthcare Association, the Committee will propose a system for disseminating the guidelines throughout the province and for monitoring actual usage against the usage suggested by the guidelines.

The development of the thyroid testing guidelines may serve as a model for the future development, implementation and review of clinical practice guidelines.

Utilization Management

At the request of the Committee, Mr. David Skene, a graduate student from the University of Alberta's Health Services Administration program, surveyed the five regional hospitals in Alberta to describe which utilization management systems are in place. This survey revealed that the Red Deer Regional Hospital has the most developed utilization management system. It includes the three key components of measurement of performance, comparison to a standard and response to modify performance. The other four regional hospitals executed some of the aspects of utilization management.

The Council of Teaching Hospitals of Alberta (COTHA) has also initiated a similar survey of its ten member institutions regarding their utilization management activities and has offered to share its results with the Committee for further discussion.

Other Issues

Members of the Utilization Monitoring Committee — Medical Services are also reviewing the impact of the following issues: out of laboratory testing, caesarean section and VBAC (vaginal birth after cesarean), cholesterol testing, framework for monitoring, lithotripsy, obstetrical services, ultrasound, and visits to long term care facilities.

Recommendations to Minister of Health

The following is a summary of all recommendations made by the Utilization Monitoring Committee — Medical Services since its establishment in May, 1990:

1. Mandatory Consultations

In February, 1991, the Utilization Monitoring Committee — Medical Services forwarded the following recommendation to the Honourable Nancy J. Betkowski, Minister of Health:

> "WHEREAS Section 21(1) of the Operation of Approved Hospitals Regulation requires "mandatory consultations for first caesarean sections, curettages in the childbearing age, hysterectomies under 40 years of age, therapeutic abortions and sterilization."
>
> AND WHEREAS Benefit Code A80 was introduced July 1, 1982 for mandatory consultations as requested by the Alberta Medical Association. Prior to the introduction of A80, payment for mandatory consultations was rejected by the Plan as a third party examination.
>
> AND WHEREAS these are the claim totals for A80 for the year ending March 31,1990:
>
> | | |
> |---|---|
> | Total services | 11,201 |
> | Total paid | $404,240 |
>
> AND WHEREAS the decision regarding the appropriateness of a consultation would seem to be a matter of professional practice and not a regulatory issue.
>
> AND WHEREAS in the past, the Alberta Medical Association and the College of Physicians and Surgeons have asked that section 21(1) be repealed on the basis that this requirement generates additional health care costs, does not contribute to improved health care and frequently serves as an irritant to physicians.
>
> AND WHEREAS the new federal abortion legislation, which is expected to be proclaimed later this fall, would allow abortions to be carried out based on the opinion of only one physician.
>
> AND WHEREAS an amendment of section 21(1) is being considered by Alberta Health to accommodate the new federal abortion legislation.
>
> AND WHEREAS it seems evident there is an improvement in quality assurance and monitoring within the province
>
> THEREFORE BE IT RESOLVED that an amendment to repeal section 21(1) of the Operation of Approved Hospitals Regulation be considered, in consultation with the Alberta Medical Association and the College of Physicians and Surgeons, and that other methods be put in place to monitor this."

The Minister is currently reviewing this recommendation with departmental staff.

2. Single Primary Billing Number

In December, 1990, the Utilization Monitoring Committee — Medical Services forwarded the following recommendation to Mr. Rhéal J. LeBlanc, Deputy Minister of Health:

> "Insofar as monitoring of physician and patient utilization of healthcare services can be improved, be it resolved that Alberta Health Care Insurance Plan (AHCIP) establish a system to provide each physician with only one primary billing number and to provide every physician with a billing number under which all of his/her fee-for-service work should be billed."

Alberta Health supports this recommendation and indicates that a unique identifier for each health care provider will be developed as part of the new stakeholder registry in the Claims Redevelopment Project, to be implemented in 1993.

3. Tracking of Laboratory Tests

At the October, 1990 meeting of the Utilization Monitoring Committee — Medical Services, it was recommended that "a system be put in place for tracking laboratory tests across the system, by physician, including linkage between the private laboratory sector and the hospital laboratory sector."

Alberta Health supports this recommendation and indicates that a detailed laboratory procedure list has been developed by an advisory committee made up of representatives from all laboratory sectors including private and hospital laboratories. It is expected that this "made-in-Alberta" procedure list will eventually be used for reporting purposes by all of the laboratory sectors.

Appendix 1

Tables — Trends in Alberta's Use of Medical Services

Table 1 Selected Indicators Relating to the Utilization of Medical Services for the years ended March 31, 1980 to 1990

Table 2 Medical Services per 1,000 Insured Persons According to Type of Service for the years ended March 31, 1980 to 1990

Table 3 Medical Services per 1,000 Insured Persons for Selected Types of Service for the years ended March 31, 1980 to 1990

Table 4 Number of Services and Amounts Paid for Alberta Residents by Type of Service for the years ended March 31, 1980 to 1990

Table 5 Number of Diagnostic Radiology Services and Examinations Performed in Alberta for the years ended March 31, 1980 to 1990

Table 6 Total Fee-for-Service Medical Payments and Benefit Price Rate Index for the years ended March 31, 1980 to 1990

Table 7 Decomposition of Changes in Annual Medical Payments into Explanatory Factors on a Date-of-Payment Basis for the years ended March 31, 1983 to 1990

Table 1
Selected Indicators Relating to the Utilization of Medical Services for the Years Ended March 31, 1980 to 1990

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Number of Medical Services (1), (2)	16,740,200	17,904,388	18,914,430	21,080,957	22,249,585	23,276,658	25,017,941	26,535,556	26,405,192	27,333,011	28,866,816
Alberta Population (3)	2,082,400	2,179,600	2,271,200	2,325,500	2,337,200	2,333,300	2,349,500	2,367,800	2,370,300	2,402,000	2,440,300
Number of Insured Persons (4)	2,186,456	2,306,428	2,423,043	2,464,253	2,443,943	2,399,690	2,443,244	2,462,017	2,480,943	2,518,973	2,568,211
Discrete Medical Patients (1), (5)	1,778.237	1,863,327	1,932,062	2,014,893	2,036,740	2,041,719	2,103,719	2,154,781	2,157,626	2,195,150	2,253,573
Number of Alberta Physicians (1)	2,669	2,730	2,864	3,037	3,180	3,323	3,460	3,605	3,769	3,860	3,945
Indexed to 1980	1.00	1.02	1.07	1.14	1.19	1.25	1.30	1.35	1.41	1.45	1.48
Services Per 1,000 Population	8,039	8,215	8,328	9,065	9,520	9,976	10,648	11,207	11,140	11,379	11,829
Indexed to 1980	1.00	1.02	1.04	1.13	1.18	1.24	1.32	1.39	1.39	1.42	1.47
Services Per 1,000 Insured Persons	7,656	7,763	7,806	8,555	9,104	9,700	10,240	10,778	10,643	10,851	11,240
Indexed to 1980	1.00	1.01	1.02	1.12	1.19	1.27	1.34	1.41	1.39	1.42	1.47
Services Per 1,000 Discrete Patients	9,414	9,609	9,790	10,463	10,924	11,401	11,892	12 ,315	12,238	12,452	12,809
Indexed to 1980	1.00	1.02	1.04	1.11	1.16	1.21	1.26	1.31	1.30	1.32	1.36
Physicians Per 100,000 Population	128	125	126	131	136	142	147	152	159	161	162
Indexed to 1980	1.00	0.98	0.98	1.02	1.06	1.11	1.15	1.19	1.24	1.26	1.27
Discrete Patient/Population Ratio	0.8539	0.8549	0.8507	0.8664	0.8714	0.8750	0.8954	0.9100	0.9103	0.9139	0.9235
Indexed to 1980	1.00	1.00	1.00	1.01	1.02	1.02	1.05	1.07	1.07	1.07	1.08
Discrete Patient/Insured Persons Ratio	0.8133	0.8079	0.7974	0.8176	0.8334	0.8508	0.8610	0. 8752	0.8697	0.8714	0.8775
Indexed to 1980	1.00	0.99	0.98	1.01	1.02	1.05	1.06	1.08	1.07	1.07	1.08

NOTES:

1. SOURCES: Alberta Health Care Insurance Plan (AHCIP), Claims Extract File for 1979-80 to 1982-83 data and Information Base for 1983-84 to 1989-90 data.
2. The number of medical services consists of fee-for-service items which the AHCIP paid to medical practitioners in Alberta for services which were provided to Alberta residents during the years ended March 31, 1980 to 1990. The data for each year are compiled on a date-of-service basis, including claims which were paid by the AHCIP for each service period during an 18 month period from April 1 of the particular service year to September 30 of the following year. Excluded from the data are any claims paid for services which were provided to: a) Alberta residents by non-Alberta physicians and, b) non-Alberta residents by Alberta physicians.
3. SOURCE: Statistics Canada, "Quarterly Demographic Statistics", Catalogue #91-002, Quarterly, (population figures are as at mid fiscal year — October 1st).
4. SOURCE: Alberta Hospitals and Medical Care, Health Care Insurance Plan, Annual Report for the years ended March 31, 1980 to 1986; Statistical Supplement for the years ended March 31, 1987 and 1990, (registered persons are as at March 31 of each year).
5. Discrete medical patients is a count of the number of Alberta residents who received at least one medical service from a medical practitioner in Alberta, during the year. The data for each year are compiled on a date-of-service basis, including claims which were paid by the AHCIP for each service period during an 18 month period from April 1 of the particular service year to September 30 of the following year.

Table 2
Medical Services per 1,000 Insured Persons According to Type of Service for the Years Ended March 31, 1980 to 1990

Type of Service	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Grand % Change Over 11 Years	Average Annual % Change
Consultations	209	216	224	255	279	301	316	336	339	346	386		
		3.35%	3.70%	13.84%	9.41%	7.89%	4.98%	6.33%	0.89%	2.06%	11.56%	84.69%	6.33%
Office Visits	3,119	3,150	3,149	3,424	3,618	3,805	4,037	4,294	4,302	4,377	4,578		
		0.99%	-0.03%	8.73%	5.67%	5.17%	6.10%	6.37%	0.19%	1.74%	4.59%	46.78%	3.91%
Hospital Visits	831	760	721	793	799	839	839	829	760	763	753		
		-8.54%	-5.13%	9.99%	0.76%	5.01%	0.00%	-1.19%	-8.32%	0.39%	-1.31%	-9.39%	-0.98%
Special Visits	63	62	61	64	64	67	70	71	72	70	66		
		-1.59%	-1.61%	4.92%	0.00%	4.69%	4.48%	1.43%	1.41%	-2.78%	-5.71%	4.76%	0.47%
Major Surgery	64	62	60	69	71	77	79	84	81	90	97		
		-3.13%	-3.23%	15.00%	2.90%	8.45%	2.60%	6.33%	-3.57%	11.11%	7.78%	51.56%	4.25%
Minor Surgery	95	100	100	107	112	117	117	115	104	104	106		
		5.26%	0.00%	7.00%	4.67%	4.46%	0.00%	-1.71%	-9.57%	0.00%	1.92%	11.58%	1.10%
Surgical Assists	27	27	25	27	27	29	30	31	29	32	35		
		0.00%	-7.41%	8.00%	0.00%	7.41%	3.45%	3.33%	-6.45%	10.34%	9.38%	29.63%	2.63%
Obstetrics	22	22	22	23	23	23	23	23	22	22	24		
		0.00%	0.00%	4.55%	0.00%	0.00%	0.00%	0.00%	-4.35%	0.00%	9.09%	9.09%	0.87%
Anaesthesia	141	139	137	156	160	171	177	177	176	183	217		
		-1.42%	-1.44%	13.87%	2.56%	6.88%	3.51%	0.00%	-0.56%	3.98%	18.58%	53.90%	4.41%
Radiology Services	295	285	272	282	290	306	316	333	337	338	347		
		-3.39%	-4.56%	3.68%	2.84%	5.52%	3.27%	5.38%	1.20%	0.30%	2.66%	17.63%	1.64%
Pathology Services	2,165	2,263	2,346	2,599	2,812	3,040	3,271	3,450	3,390	3,468	3,538		
		4.53%	3.67%	10.78%	8.20%	8.11%	7.60%	5.47%	-1.74%	2.30%	2.02%	63.42%	5.03%
Other Diagnostic & Therapeutic Services	592	606	614	666	750	805	827	888	881	897	923		
		2.36%	1.32%	8.47%	12.61%	7.33%	2.73%	7.38%	-0.79%	1.82%	2.90%	55.91%	4.54%
Miscellaneous	32	70	76	89	98	120	136	146	151	160	170		
		118.75%	8.57%	17.11%	10.11%	22.45%	13.33%	7.35%	3.42%	5.96%	6.25%	431.25%	18.18%
Total	7,656	7,763	7,806	8,555	9,104	9,700	10,240	10,778	10,643	10,851	11,240		
		1.40%	0.55%	9.60%	6.42%	6.55%	5.57%	5.25%	-1.25%	1.95%	3.58%	46.81%	3.91%

Notes:

1. Sources: Alberta Health Care Insurance Plan (AHCIP), Claims Extract File for 1979-80 to 1982-83 data and Information Base for 1983-84 to 1989-90 data.
2. The above service data consist of fee-for-service items which the AHCIP paid to medical practitioners in Alberta for services which were provided to Alberta residents during the years ended March 31, 1980 to 1990. The data for each year are compiled on a date-of-service basis, including claims which were paid by the AHCIP for each service period during an 18 month period from April 1 of the particular service year to September 30 of the following year.

Table 3
Medical Services per 1,000 Insured Persons for Selected Types of Service for the Years Ended March 31, 1980 to 1990

Type of Service	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Consultations	209	216	224	255	279	301	316	336	339	346	386
Index	1.00	1.03	1.07	1.22	1.33	1.44	1.51	1.61	1.62	1.66	1.85
Office Visits	3,119	3,150	3,149	3,424	3,618	3,805	4,037	4,294	4,302	4,377	4,578
Index	1.00	1.01	1.01	1.10	1.16	1.22	1.29	1.38	1.38	1.40	1.47
Major Surgery	6	62	60	69	71	77	79	84	81	90	97
Index	1.00	0.97	0.94	1.08	1.11	1.20	1.23	1.31	1.27	1.41	1.52
Minor Surgery	95	100	100	107	112	117	117	115	104	104	106
Index	1.00	1.05	1.05	1.13	1.18	1.23	1.23	1.21	1.09	1.09	1.12
Radiology Services	295	285	272	282	290	306	316	333	337	338	347
Index	1.00	0.97	0.92	0.96	0.98	1.04	1.07	1.13	1.14	1.15	1.18
Pathology Services	2,165	2,263	2,346	2,599	2,812	3,040	3,271	3,450	3,390	3,468	3,538
Index	1.00	1.05	1.08	1.20	1.30	1.40	1.51	1.59	1.57	1.60	1.63
Other Diagnostic & Therapeutic Services	592	606	614	666	750	805	827	888	881	897	923
Index	1.00	1.02	1.04	1.13	1.27	1.36	1.40	1.50	1.49	1.52	1.56
Total — All Types	7,656	7,763	7,806	8,555	9,104	9,700	10,240	10,778	10,643	10,851	11,240
Index	1.00	1.01	1.02	1.12	1.19	1.27	1.34	1.41	1.39	1.42	1.47

Notes:

1. Sources: Alberta Health Care Insurance Plan (AHCIP), Claims Extract File for 1979-80 to 1982-83 data and Information Base for 1983-84 to 1989-90 data.
2. The above service data consist of fee-for-service items which the AHCIP paid to medical practitioners in Alberta for services which were provided to Alberta residents during the years ended March 31, 1980 to 1990. The data for each year are compiled on a date-of-service basis, including claims which were paid by the AHCIP for each service period during an 18 month period from April 1 of the particular service year to September 30 of the following year.

Table 4
Number of Services and Amounts Paid for Alberta Residents by Type of Service for the Years Ended March 31, 1980 to 1990

	1980 Services Amt Paid	1981 Services Amt Paid	1982 Services Amt Paid	1983 Services Amt Paid	1984 Services Amt Paid	1985 Services Amt Paid
Consultations	457,933	497,816	541,585	627,433	681,554	722,088
		8.71%	8.79%	15.85%	8.63%	5.95%
	$15,860,674	$19,480,262	$25,156,631	$33,079,402	$37,664,147	$40,020,507
		22.82%	29.14%	31.49%	13.86%	6.26%
Office Visits	6,820,397	7,264,795	7,629,684	8,438,322	8,841,571	9,130,256
		6.52%	5.02%	10.60%	4.78%	3.27%
	$92,925,291	$112,399,024	$141,320,163	$175,257,141	$188,952,124	$194,683,355
		20.96%	25.73%	24.01%	7.81%	3.03%
Hospital Visits	1,817,760	1,753,401	1,747,796	1,955,012	1,952,981	2,014,174
		−3.54%	−0.32%	11.86%	−0.10%	3.13%
	$18,062,789	$20,088,093	$24,155,450	$33,614,449	$35,491,273	$36,121,935
		11.21%	20.25%	39.16%	5.58%	1.78%
Special Visits	138,505	142,319	147,300	158,858	156,238	159,777
		2.75%	3.50%	7.85%	−1.65%	2.27%
	$1,901,037	$2,253,055	$2,739,192	$3,723,899	$3,786,216	$3,771,366
		18.52%	21.58%	35.95%	1.67%	−0.39%
Major Surgery	139,375	142,863	144,459	169,276	173,364	184,495
		2.50%	1.12%	17.18%	2.41%	6.42%
	$21,767,456	$24,362,465	$28,771,707	$37,355,066	$39,810,544	$42,129,146
		11.92%	18.10%	29.83%	6.57%	5.82%
Minor Surgery	208,752	231,217	241,902	264,717	274,658	280,051
		10.76%	4.62%	9.43%	3.76%	1.96%
	$5,192,393	$6,325,372	$7,529,162	$8,525,068	$8,446,352	$8,930,740
		21.82%	19.03%	13.23%	−0.92%	5.73%
Surgical Assists	59,249	62,937	60,276	67,368	66,814	69,377
		6.22%	−4.23%	11.77%	−0.82%	3.84%
	$1,359,143	$1,600,146	$1,866,263	$2,516,054	$2,579,750	$2,669,894
		17.73%	16.63%	34.82%	2.53%	3.49%
Obstetrics	47,636	49,683	53,153	56,374	56,101	54,601
		4.30%	6.98%	6.06%	−0.48%	−2.67%
	$7,418,418	$9,277,590	$11,478,054	$14,513,713	$15,369,804	$14,901,036
		25.06%	23.72%	26.45%	5.90%	−3.05%
Anaesthesia	309,041	319,504	332,661	383,982	391,678	410,878
		3.39%	4.12%	15.43%	2.00%	4.90%
	$10,296,144	$12,224,208	$14,457,902	$19,249,348	$20,024,673	$20,999,575
		18.73%	18.27%	33.14%	4.03%	4.87%
Radiology Services	644,270	658,139	658,867	695,080	709,820	735,096
		2.15%	0.11%	5.50%	2.12%	3.56%
	$12,301,228	$13,745,086	$16,808,045	$19,595,615	$20,752,681	$21,628,994
		11.74%	22.28%	16.58%	5.90%	4.22%
Pathology Services	4,733,128	5,220,539	5,683,654	6,403,822	6,872,845	7,295,502
		10.30%	8.87%	12.67%	7.32%	6.15%
	$28,618,928	$35,075,275	$45,354,573	$59,306,685	$70,386,893	$76,758,703
		22.56%	29.31%	30.76%	18.68%	9.05%
Other Diagnostic	1,293,807	1,398,807	1,488,090	1,641,541	1,832,621	1,932,203
		8.12%	6.38%	10.31%	11.64%	5.43%
	$10,391,492	$12,508,272	$15,955,261	$21,865,575	$25,670,827	$27,693,760
		20.37%	27.56%	37.04%	17.40%	7.88%
Miscellaneous	70,347	162,368	185,003	219,172	239,340	288,160
		130.81%	13.94%	18.47%	9.20%	20.40%
	$902,565	$1,935,596	$2,633,327	$3,640,693	$4,151,775	$4,836,417
		114.46%	36.05%	38.25%	14.04%	16.49%
Total	16,740,200	17,904,388	18,914,430	21,080,957	22,249,585	23,276,658
		6.95%	5.64%	11.45%	5.54%	4.62%
	$226,997,558	$271,274,544	$338,225,730	$432,242,708	$473,087,059	$495,145,428
		19.51%	24.68%	27.80%	9.45%	4.66%

Notes:

1. Sources: Alberta Health Care Insurance Plan (AHCIP), Claims Extract File for 1979-80 to 1982-83 data and Information Base for 1983-84 to 1989-90 data.

1986 *Services* Amt Paid	1987 *Services* Amt Paid	1988 *Services* Amt Paid	1989 *Services* Amt Paid	1990 *Services* Amt Paid	Grand % *Change Over* 11 Years	Average *Annual* % Change
773,129	828,093	840,672	872,760	990,667		
7.07%	7.11%	1.52%	3.82%	13.51%	116.33%	8.02%
$42,748,524	$48,150,466	$48,747,471	$52,149,797	$57,074,355		
6.82%	12.64%	1.24%	6.98%	9.44%	259.85%	13.66%
9,863,905	10,571,630	10,673,599	11,024,944	11,757,716		
8.04%	7.17%	0.96%	3.29%	6.65%	72.39%	5.60%
$209,954,176	$235,432,108	$236,184,944	$251,588,173	$276,677,512		
7.84%	12.13%	0.32%	6.52%	9.97%	197.74%	11.53%
2,050,195	2,041,046	1,884,395	1,921,563	1,935,088		
1.79%	−0.45%	−7.68%	1.97%	0.70%	6.45%	0.63%
$37,108,757	$38,824,783	$36,124,569	$38,306,932	$40,386,277		
2.73%	4.62%	−6.95%	6.04%	5.43%	123.59%	8.38%
169,811	174,940	178,447	176,545	169,254		
6.28%	3.02%	2.00%	−1.07%	−4.13%	22.20%	2.03%
$4,023,519	$4,253,013	$4,331,365	$4,420,605	$4,434,402		
6.69%	5.70%	1.84%	2.06%	0.31%	133.26%	8.84%
194,201	206,334	201,414	226,107	249,058		
5.26%	6.25%	−2.38%	12.26%	10.15%	78.70%	5.98%
$44,802,779	$49,316,293	$48,551,256	$55,018,649	$58,627,479		
6.35%	10.07%	−1.55%	13.32%	6.56%	169.34%	10.42%
286,088	283,819	257,141	261,555	273,218		
2.16%	−0.79%	−9.40%	1.72%	4.46%	30.88%	2.73%
$9,239,625	$9,887,087	$10,070,405	$10,237,433	$10,709,276		
3.46%	7.01%	1.85%	1.66%	4.61%	106.25%	7.51%
73,818	75,521	73,152	81,638	90,027		
6.40%	2.31%	−3.14%	11.60%	10.28%	51.95%	4.27%
$2,760,552	$2,935,572	$2,873,668	$3,466,664	$3,509,961		
3.40%	6.34%	−2.11%	20.64%	1.25%	158.25%	9.95%
55,276	56,073	53,473	56,167	60,707		
1.24%	1.44%	−4.64%	5.04%	8.08%	27.44%	2.45%
$14,953,886	$18,210,241	$19,855,345	$20,448,316	$20,373,987		
0.35%	21.78%	9.03%	2.99%	−0.36%	174.64%	10.63%
432,071	436,924	437,414	462,201	557,661		
5.16%	1.12%	0.11%	5.67%	20.65%	80.45%	6.08%
$21,908,249	$24,410,006	$24,215,106	$27,654,791	$30,396,333		
4.33%	11.42%	−0.80%	14.20%	9.91%	195.22%	11.43%
773,120	821,018	835,071	851,545	890,135		
5.17%	6.20%	1.71%	1.97%	4.53%	38.16%	3.29%
$23,055,773	$25,319,711	$26,515,007	$28,408,846	$30,413,012		
6.60%	9.82%	4.72%	7.14%	7.05%	147.24%	9.47%
7,991,653	8,494,499	8,410,082	8,735,937	9,085,701		
9.54%	6.29%	−0.99%	3.87%	4.00%	91.96%	6.74%
$86,015,933	$98,796,781	$99,055,930	$102,959,660	$110,621,172		
12.06%	14.86%	0.26%	3.94%	7.44%	286.53%	14.48%
2,021,761	2,186,020	2,186,071	2,259,646	2,370,759		
4.64%	8.12%	0.00%	3.37%	4.92%	83.24%	6.24%
$30,066,793	$33,664,038	$34,642,055	$37,835,464	$42,949,515		
8.57%	11.96%	2.91%	9.22%	13.52%	313.32%	15.25%
332,913	359,639	374,261	402,403	436,825		
15.53%	8.03%	4.07%	7.52%	8.55%	520.96%	20.03%
$5,622,461	$6,812,312	$7,551,392	$8,933,090	$10,117,510		
16.25%	21.16%	10.85%	18.30%	13.26%	1,020.97%	27.34%
25,017,941	26,535,556	26,405,192	27,333,011	28,866,816		
7.48%	6.07%	−0.49%	3.51%	5.61%	72.44%	5.60%
$532,261,027	$596,012,411	$598,718,513	$641,4[illegible]420	$696,290,891		
7.50%	11.98%	0.45%	7.[illegible]%	8.55%	206.74%	11.86%

2. The above service data consist of fee-for-service items which the AHCIP paid to medical practitioners in Alberta for services which were provided to Alberta residents during the years ended March 31, 1980 to 1990. The data for each year are compiled on a date-of-service basis, including claims which were paid by the AHCIP for each service period during an 18 month period from April 1 of the particular service year to September 30 of the following year.

Table 5
Number of Diagnostic Radiology Services and Examinations(1) Performed in Alberta for the Years Ended March 31, 1980 to 1990

Years Ended March 31	Fee-for-Service Diagnostic Radiology Services(2)	Diagnostic Radiology Examinations(3)			Grand Total
		In-Patient Services	Out-Patient Services	Total	
1979-80	656,775	447,538	708,709	1,156,247	1,813,022
Indexed to 1980	1.00	1.00	1.00	1.00	1.00
1980-81	679,833	434,552	721,674	1,156,226	1,836,059
Indexed to 1980	1.04	0.97	1.02	1.00	1.01
1981-82	685,517	430,389	757,156	1,187,545	1,873,062
Indexed to 1980	1.04	0.96	1.07	1.03	1.03
1982-83	772,595	494,239	795,247	1,289,486	2,062,081
Indexed to 1980	1.18	1.10	1.12	1.12	1.14
1983-84	788,683	520,799	782,825	1,303,624	2,092,307
Indexed to 1980	1.20	1.16	1.10	1.13	1.15
1984-85	836,319	527,508	853,164	1,380,672	2,216,991
Indexed to 1980	1.27	1.18	1.20	1.19	1.22
1985-86	877,926	557,125	905,094	1,462,219	2,340,145
Indexed to 1980	1.34	1.24	1.28	1.26	1.29
1986-87	927,031	575,321	961,081	1,536,402	2,463,433
Indexed to 1980	1.41	1.29	1.36	1.33	1.36
1987-88	977,679	511,455	925,646	1,437,101	2,414,780
Indexed to 1980	1.49	1.14	1.31	1.24	1.33
1988-89	991,275	532,903	988,840	1,521,743	2,513,018
Indexed to 1980	1.51	1.19	1.40	1.32	1.39
1989-90	1,037,375	545,115	1,059,388	1,604,503	2,641,878
Indexed to 1980	1.58	1.22	1.49	1.39	1.46

Notes:

1. Source: Alberta Health Care Insurance Plan (AHCIP), Claims File; and Annual Return of Health Care Facilities, as reported by Public and Federal General hospitals and Mental Health hospitals to Alberta Health for the years ended March 31, 1980 to 1990. The Annual Return data for March 31, 1990 are preliminary.
2. The above data consist of fee-for-service items which the AHCIP paid to medical practitioners in Alberta during the years ended March 31, 1980 to 1990, for services which were provided to Alberta residents. The data are compiled on a date-of-payment basis. Due to delays in the submission and processing of health care claims, the services which were paid in a year may not be the same services which were provided during the year. In this exercise, diagnostic radiology services are defined as those services which were paid under fee codes within the Diagnostic Radiology Section of the Schedule of Medical Benefits.
3. The hospital data are reported on a date-of-service basis.

Table 6
Total Fee-for-Service Medical Payments and Benefit Price Rate Index for the Years Ended March 31, 1980 to 1990

	Medical Benefit Price Index 1979-80=100	Total Payments	
		Current Benefit Dollars	1979-80 Benefit Dollars
1980	100.00	226,997,558	226,997,558
1981	112.62	271,274,544	240,875,994
1982	132.75	338,225,730	254,783,977
1983	152.50	432,242,708	283,437,841
1984	159.71	473,087,059	296,216,304
1985	159.71	495,145,428	310,027,818
1986	159.71	532,261,027	333,267,189
1987	168.41	596,012,411	353,905,594
1988	169.69	598,718,513	352,830,758
1989	172.91	641,428,420	370,960,858
1990	178.29	696,290,891	390,538,387

Notes:

1. Sources: Alberta Health Care Insurance Plan (AHCIP), Claims File for 1979-80 to 1982-83 data and Information Base for 1983-84 to 1989-90 data.
2. The above data consist of fee-for-service payments which the AHCIP paid to medical practitioners in Alberta for services which were provided to Alberta residents during the years ended March 31, 1980 to 1990. The data for each year are compiled on a date-of-service basis, including claims which were paid by AHCIP for each service period from April 1 of the particular service year to September 30 of the following year.

Table 7
Decomposition of Changes in Annual Medical Payments into Explanatory Factors on a Date-of-Payment Basis for the Years Ended March 31, 1983 to 1990

Year Ending March 31	Total(1) (%)	Payment Runs(2) (%)	Population(3) (%)	Price(4) (%)	Utilization	
					Capacity(5) (%)	Service Intensity(6) (%)
1983	28.82	2.48	2.58	15.19	1.52	7.05
1984	11.87	-2.19	0.71	5.88	0.71	6.76
1985	4.33	2.01	-0.10	0.50	0.47	1.45
1986	8.82	0.00	0.60	0.00	2.11	6.11
1987	9.06	-2.14	0.77	5.02	1.73	3.68
1988	3.46	0.00	0.50	1.18	-0.15	1.93
1989	4.66	0.00	1.16	1.81	0.49	1.20
1990	8.80	0.00	1.57	3.02	1.16	3.05

METHOD: Total Medical fee-for-service payments measured on a date-of-payment basis relate to services provided in the payment year, and to services provided in the previous year. Since date-of-payment data are sensitive to the number of cheque issuances, the data are adjusted by the Payment Runs variable, and as such, ensure comparability between the payment periods. In order to express changes in the annual amount of total payments in terms of changes in explanatory factors, which are measured on a date-of-service basis, it is necessary to apply an adjustment to those factors. The adjustment takes the form of weights applied to the annual change in each of the explanatory factors, and are derived from the proportion of payments associated with services provided in the payment year, and those associated with services provided in the previous year. The weights are required to account for any distortions caused by the lag between service date and payment date. Percentage change in total payments is expressed as the sum of percentage change in the explanatory factors. The factor decomposition is derived from the model of medical payments which states:

Total Payments = Population x Price x Capacity x Service Intensity

From which it follows that:

Change in Total Payments = Population Change + Price Change + Capacity Change + Service Intensity Change

NOTES:

(1) Percentage change in fee-for-service payments provided to Alberta residents by Alberta physicians measured on a date-of-payment basis.

(2) Percentage change in the amount of payments related to the number of cheque issuances made during the year.

(3) Percentage change in the eligible population.

(4) Percentage change in the Schedule of Medical Benefits.

(5) Percentage change in the ratio of the number of persons who had at least one physician encounter during the year, (discrete patient), to the eligible population.

(6) Percentage change in the benefit weighted number of services per discrete patient, which avoids assigning equal weights to each service. Otherwise, changes in the number of office visits and changes in the number of heart surgeries would be treated the same.

Appendix 2

Presentations to the Utilization Monitoring Committee — Medical Services

Acute Care Funding Plan
On June 25, 1990, Mr. Dave Reynolds, Project Director, Acute Care Funding Plan, Hospital Services Division, Alberta Health, provided a project overview and discussed the issues of length of stay and waiting lists.

Advisory Committee on Utilization of Medical Services
On June 25, 1990, Dr. M. Watanabe, who served as Chairman of the Advisory Committee on the Utilization of Medical Services, reviewed the work and recommendations of that Committee.

Case Management Technology
On November 30, 1990, Ms. Kerry Toll, Vice-President, Research and Planning, Alberta Cancer Board, gave a presentation on the potential of case management technology as it relates to the treatment of cancer patients.

Consumer Use of Office Health Care: Facts and Implications
On May 31, 1991, Dr. Penny Jennett, Office of Medical Education, Faculty of Medicine, University of Calgary, presented the findings of her study on the characteristics of consumers using office health care.

High Users of Health Care Services — Utilization and Interventions
On May 31, 1991, Dr. Howard Platt, Provincial Medical Consultant, Alberta Health, presented his report on High Users of Health Care Services.

Minister, the Honourable Nancy J. Betkowski
The Minister attended the initial meeting of the Utilization Monitoring Committee — Medical Services on May 30, 1990 to outline her expectations of the Committee.

Technology Assessment in Alberta and Canada
On March 22, 1991, Dr. Donald J. Philippon, Assistant Deputy Minister, Hospital Services Division, Alberta Health, and Mr. Ron Taylor, Director, Provincial Programs and Capital Planning Branch, Hospital Services Division, Alberta Health, provided an update on technology assessment activities in Alberta and Canada.

Organizations Seeking Opinion from the Utilization Monitoring Committee — Medical Committee

Alberta Heritage Foundation for Medical Research
Opinion sought on the question of healthcare delivery research.

Appendix 3

Conferences Attended by Members of the Utilization Monitoring Committee — Medical Services

Health Economics Conference — Toronto — August 27-29, 1990
Attended by Dr. R. Plain, Ms. S. Snell and Mr. D. Kelly

Congress on Utilization Management — September 1990
Attended by Dr. R.E. Hatfield and Dr. B. Ward

Statistical Monitoring of Medical Practice sponsored by the Alberta College of Physicians and Surgeons — September 27 & 28, 1990
Attended by Dr. B. Ward and Dr. E. Wasylenko

Presentation of Epidemiological Studies — February 14, 1991
Attended by Ms. S. Snell

Presentation by Dr. Fraser Mustard — Canadian Health in the Nineties: Planning for Care
Attended by Mr. D. Hart, Dr. R.E. Hatfield, Dr. E. Wasylenko, Dr. B. Ward and Mr. R. Coombs

Appendix 4

Statement of Expenditures

for the period May 1, 1990 to March 31, 1991

Travel	$11,446
Honoraria	20,268
Contract Services	7,096
Materials and Supplies	70
Total Expenditures	$38,880